

EXPORTING THE FUTURE ECONOMY:

A Canadian Trade
Diversification Strategy



Exporting the Future Economy: A Trade Diversification Strategy to Boost Canada's Economic Security

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About The Transition Accelerator

Our Objective

The Transition Accelerator is putting Canada on a path to a strong competitive economy in a world driving to reduce emissions to carbon neutrality.

Our Work

The Transition Accelerator drives projects, partnerships, and strategies to ensure Canada is competitive in a carbon-neutral world. We're harnessing the global shift towards clean growth to secure permanent jobs, abundant energy, and strong regional economies across the country.

We work with 300+ partner organizations to build out pathways to a prosperous low-carbon economy and avoid costly dead-ends along the way. By connecting systems-level thinking with real-world analysis, we're enabling a more affordable, competitive, and resilient future for all Canadians.

Our Unique Approach

- » We **understand the current system in practice**, not just in theory, identifying barriers to innovation and opportunities for change.
- » We bring together industry, labour, government, Indigenous and other leaders to **define shared visions of success** for their sectors, regions, or communities.
- » We mobilize partners to **develop pathways to get there**, understanding and refining them to ensure they are credible, capable, and compelling.
- » We turn ideas into action and **take steps down those pathways** by launching projects and partnerships to build a more competitive future.

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**Canada
needs a trade
diversification
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Executive Summary

Canada faces a critical trade vulnerability: more than 70% of exports go to the United States, and structural weakness in oil and gas prices threatens long-term economic security. Canada needs a trade diversification strategy that builds on existing strengths while positioning the country to participate in future value chains. Clean energy supply chains offer exactly this opportunity—one that is accelerating as the global energy transition continues, driven as much by geopolitics and economic competitiveness as it is by climate policy.ⁱ

The Opportunity

Our analysis shows that boosting Canada's exports in clean energy value chains is, effectively, a trade diversification strategy. Investments in clean technology and its industrial base simultaneously build on existing strengths, target the fastest-growing global markets, and position Canada in value chains critical to allied democracies. This study shows that:

- ▶ **Canada's exports in clean energy supply chains grew 21% faster than all other exports over the last five years.**
- ▶ **Canada's clean energy supply chain exports to the rest of the world grew faster than such exports to the United States.**
- ▶ **Canada's clean energy supply chains are dual-use: building on upstream and midstream strengths in Canada's industrial base offers a critical opportunity as it bolsters both clean energy and defense sectors.**

The global market for clean energy value chain products is substantial and growing rapidly. In 2023, these markets were worth US\$6.3 trillion and are projected to grow by 13% annually over the next decade.ⁱⁱ Canada currently has a 3.4% share of these markets—up from 3% in 2018. Canadian exports into these markets are outpacing the global economy at a rate of 147%. If Canada's exports into these markets scale with the global clean economy, they have the potential to grow from US\$212 billion in 2023 to US\$814 billion annually—adding over \$600 billion in global exports—by 2035.

The Priorities

Canada can seize future economic opportunities, increase sovereignty, and diversify trade by investing in clean energy supply chains.ⁱⁱⁱ Specifically, our analysis shows that a Canadian trade diversification strategy could successfully build on existing strengths in five core areas:

- 1 Upstream minerals and processed metals, including uranium**
- 2 Midstream components in motor vehicle, aerospace, and grid equipment value chains**
- 3 Midstream chemicals and polymers**
- 4 High-value mechanical and electrical machinery crucial to production processes**
- 5 Downstream vehicles and grid equipment**

Canada is also well-positioned in mass timber and prefabricated housing, as well as in magnet value chains, but a concerted effort would be needed to translate this positioning into trade diversification. Canada also has good potential in the geothermal value chain.

While Canada is not a significant downstream producer of solar panels, wind turbines or electrolyzer components, the strength of its overall industrial base means that it could find valuable niches in these areas through upstream and midstream components. Here investments in the aerospace and the defence industrial base, where Canada has some existing capabilities, would likely be complementary.

The Way Forward

Canada must adapt to a new economic and security environment. Canada can diversify trade while advancing climate action, increasing geopolitical resilience, and securing economic prosperity. Canada's strategic autonomy requires going beyond commodities exports to a focused, cross-sectoral industrial strategy that seeks to deliberately expand production and processing in coordination with its core allies.

We conclude with three sets of recommendations:

- 1 Rethink trade policy:** *Create a framework for managed trade that is not centred solely on trade agreements but also conducts joint industrial policy with key allies.* In addition to conventional free trade agreements, Canada should create collaborative industrial policy arrangements with European and Asian democratic partners that align investment strategies and the strategic development of technological capabilities across interconnected manufacturing supply chains.
- 2 Focus industrial strategy:** *Microtarget the development of key supply chain segments in rapidly growing global markets.* To advance beyond commodity extraction to deliberate positioning in high-value supply chain nodes, Canada will need a disciplined, coordinated process to align investment and policy.^{iv}

3 Integrate trade diplomacy and infrastructure with industrial strategy.

The areas of strength identified in this analysis should be used to inform our trade infrastructure buildout and our trade diplomacy. This analysis can also inform focused business development and infrastructure planning across Government agencies and Crown corporations.

By concentrating federal policy instruments and coordination mechanisms in key areas, Canada can diversify trade while making itself an indispensable component of democratic supply chains. This approach transforms trade diversification from a diplomatic aspiration to the outcome of strategic industrial capacity-building.





**More than
70% of
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States**

Introduction

President Donald Trump's tariff war has exposed Canada's dependency on trade with the United States as a geopolitical and economic liability. More than 70% of Canadian exports go to the United States (Table 1), and our trade surplus with the U.S. is driven almost entirely by oil and gas exports. Moreover, structurally weak oil and gas prices, driven by the global energy transition and a glut of new supply, suggest that Canada would need to reckon with this reality over the next 30 years either way. Other oil and gas exporting nations have also realized this and are deploying aggressive economic diversification strategies with strong investments across verticals.^v This means Canada must pivot toward a more diversified product base.

To put the country in the most resilient and competitive position, a Canadian diversification strategy must simultaneously position its exports in future value chains and build on the country's strengths in natural resources, midstream processing, and clean technology production.

Table 1. Canadian exports to the U.S. and Rest of the World (ROW) (C\$ billion)

	2019	2020	2021	2022	2023	2024	Annual growth rate	2035 (Projected)
All exports	745	655	784	967	977		7.77%	2397
Goods	592	523	632	783	768	781	6.37%	1611
Services	153	132	152	184	208		9.09%	591
U.S.	528	455	563	699	701		8.22%	1811
Goods	446	383	476	599	594	596	6.74%	1299
Services	82	72	87	100	107		7.80%	263
ROW	217	200	221	268	275		6.67%	597
Goods	146	140	156	184	174	184	5.24%	321
Services	71	60	65	84	101		10.57%	337
U.S. Share	71%	70%	72%	72%	72%			76%

Source: StatsCan <https://doi.org/10.25318/1210017101-eng>; StatsCan <https://doi.org/10.25318/3610000701-eng>.

A successful trade diversification strategy must combine both bold short-term infrastructure development and long-term investments in capacity and relationships in other countries. There are two key questions in designing such a strategy:

First, what is Canada good at? Where does it have a comparative advantage?

Second, what does the rest of the world, outside the U.S., need?

Further, both questions must be considered on two timescales: what can we export today, and what could we export over the next 30 years?

To identify areas of strength and opportunity, we analyze exports across 11 clean energy value chains, from solar to EVs, and from mass timber to prefabricated housing. Our analysis focuses on the merchandise trade in physical goods. There are also opportunities in services that should be explored.

We evaluate opportunities at three levels of analysis, moving from broader categories to more specific opportunities:

» **Sectors**, or value chains (EVs and batteries, solar panels, grid equipment, etc.)

» **Value chain segments** (upstream, midstream, downstream)

» **Specific products** (copper ore, vacuum pumps, etc.)

To capture both current and future markets, we focus on absolute growth in exports measured in Canadian dollars (all figures are in Canadian dollars, unless specified otherwise). Absolute growth reflects both the rate of change (the growth percentage) and the size of the global market for the products (the export value), making it an ideal indicator. Looking only at growth rates would highlight many fast-growing but ultimately small markets. By tracking total-dollar change instead, we identify products that exhibit strong growth in large markets—those most capable of meaningfully shifting Canada's trade profile.

The analysis has important implications for Canada's overall industrial strategy, trade infrastructure, and strategic trade policy such as tariffs, trade commission outreach, and export finance. By identifying areas of global strength and comparative advantage, it helps target Canada's diplomatic efforts and guide infrastructure investment more effectively.

Methodology

We started with a mapping of trade codes onto 11 clean energy value chains.^{vi} The mapping includes the whole value chain: upstream critical minerals, processed metals, midstream components, and downstream products. Our value chain representation also includes production equipment: the machines used to manufacture or process the needed materials and products. As such, the value chains include the whole industrial base needed to produce the 11 core technologies. This mapping generated a list of 453 unique traded goods at the Harmonized System six-digit level.

We then used Statistics Canada data to calculate 2019-2024 growth rates for each product, supply chain segment, and sector. These growth rates are central to our analysis below. It is important to note that our model is quite broad, capturing big movements in minerals like iron ore, processed metals like steel, and components like compressors which are involved in other value chains beyond clean energy products. This is to say that markets for clean energy technology are not exclusively driving the results captured here. Instead, this analysis is designed to identify strengths and weaknesses in Canada's export competitiveness. For our analysis of global markets, we used UN Comtrade data via BACI, a database of bilateral trade flows.

We must be careful not to interpret the results too precisely. The analysis points, in some cases, to very specific products. However, we should be mindful that these products stand in for a broader set of industrial capabilities and economic strengths which could be reconfigured. Comparative advantage is not static or given by nature, but emerges from the interaction of strategic choices, knowledge, and natural endowments.

Canada exports \$212 billion in products needed for the global clean energy transition

Export Analysis

It is critical to begin with the scale of the diversification challenge. In 2024, Canada exported merchandise goods worth \$781 billion.^{vii} Fully three-quarters of those exports—\$547 billion —were to the United States. Canada exports \$212 billion in products needed for the global clean energy transition.¹ In the 453 trade codes we analyze, 85% of exported goods went to the United States.

Overall Sector Performance

Our analysis evaluates trade diversification opportunities at the sectoral level, the product level, and the value chain segment. Beginning with the sectoral level, Table 2 presents a trade-growth index for each sector, where one equals the 2019 level. A score greater than one on the growth index indicates that exports in the sector are growing faster than the rest of the economy. The diversification score for each sector tests whether Canadian exports to the Rest of the World (ROW) are growing faster than Canadian exports to the United States. A diversification score greater than zero indicates that exports in that sector are already diversifying trade, because they are growing faster with the ROW than with the United States. A diversification score below zero indicates a growing reliance on the U.S. market.

Table 2. Clean Energy Export Growth Indices and Diversification Scores

	Trade Growth Index		Diversification Score
	U.S.	ROW	
EVs and Battery	1.65	1.65	0.00
Nuclear	2.40	4.36	1.96
Grid	1.36	1.68	0.33
Mass timber	1.10	.94	-0.16
Heat pumps	1.35	.92	-0.43
Electrolyzers	1.19	1.47	0.28
Magnets	1.23	1.66	0.44
Geothermal	1.04	1.73	0.69
Biofuel	1.15	1.65	0.51
Solar	1.22	1.66	0.44
Wind	1.12	1.55	0.44
Total	1.28	1.67	0.39

1 A note of clarification: our dataset includes 453 products, and those products go into multiple value chains. We are not claiming that all \$212 billion of these exports are in clean energy technology, but rather that the products we track amount to a market of that size. This means that Canada can bolster exports into clean energy value chains while contributing to a range of other markets with a large market size.

The index on all products is 1.23. Clean energy exports to the U.S. grew 28% and exports to the ROW grew 67%. Therefore, clean energy value chains are increasing exports as a whole and making a major diversification contribution. In short, clean-energy export policy is diversification policy.

EVs and the battery supply chain, grid equipment, and nuclear all emerge as strong opportunity areas, with grid and nuclear value chain exports already driving diversification. Canada is also rapidly growing exports in the solar, wind, geothermal, magnets, and electrolyzer value chains.

To better understand what products and capacities are driving these outcomes, we dive deeper into specific traded goods (Tables 3-4) and value chain segments (Figures 1-7).

Top products

Tables 3 and 4 focus on specific products using two metrics:

- » **Diversification drivers: Top products by absolute growth in exports, 2019-2024**
- » **Missed opportunities: Canada has comparative advantages in these products, but is not exporting meaningfully to the ROW.**

Table 3. Diversification Drivers: Growth in Canadian Exports to Rest of World, 2019-2024

Rank	HS6		Product Description	Absolute Growth	ROW Growth
1	260111		Iron ores and concentrates	\$2.20B	54%
2	284410		Uranium: natural uranium and compounds	\$2.05B	266%
3	260300		Copper ores and concentrates	\$1.41B	38%
4	750110		Nickel mattes	\$180M	17%
5	870390		Vehicles: for transport of persons	\$176.8M	55%
6	440131		Wood: fuel, sawdust, waste	\$139.1M	32%
7	740100		Copper mattes	\$137.4M	63%
8	841199		Parts of gas turbines	\$131.6M	25%
9	870840		Vehicle parts: gear boxes and parts	\$129.8M	43%
10	220710		Undenatured ethyl alcohol	\$113.2M	305%
11	903149		Optical instruments and appliances	\$99.9M	32%
12	870340		Vehicles: spark-ignition engines	\$99.4M	7891%
13	850131		Electric motors: DC, output ≤750W	\$85.0M	453%
14	840790		Engines: rotary internal combustion piston	\$82.1M	336%
15	750400		Nickel: powders and flakes	\$76.6M	31%
16	720293		Ferro-alloys: ferro-niobium	\$70.8M	41%
17	390210		Polypropylene in primary forms	\$66.2M	298%
18	853710		Electric control boards, panels	\$62.7M	23%
19	854370		Electrical machines (individual functions)	\$61.5M	37%
20	847989		Mechanical appliances (individual functions)	\$54.8M	16%

	Upstream		Midstream		Downstream		Production Equipment
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Table 3 presents **diversification drivers**: the top products by absolute growth in dollars. These products are already diversifying trade through high-growth exports into non-U.S. markets. This indicator combines the rate of growth and the economic scale of the exported product into a single measure.

Table 4 lists the **missed opportunities**: products in which Canada has key strengths but which it is not exporting to the world outside the United States at the same rate. These are areas where increased trade infrastructure and strategic trade missions could generate big gains.

Table 4. Missed Opportunities: High U.S. Growth, Low Rest of World Growth

Rank	HS6	Product Description	US 2024	US Growth	ROW Growth
1	750120	Nickel oxide sinters and intermediate products	\$26.8M	911834%	-94%
2	722599	Steel, alloy: flat-rolled, width 600mm or more	\$108.4M	104522%	482%
3	260800	Zinc ores and concentrates	\$7.8M	79915%	40%
4	850790	Electric battery parts	\$271.1M	9974%	-30%
5	850134	Electric motors and generators, DC>375kW	\$92.3M	9396%	-32%
6	283324	Nickel sulphates	\$768K	7877%	-81%
7	284430	Uranium: U235, thorium and their compounds	\$819K	5738%	-
8	281290	Halides and halide oxides	\$2.1M	4165%	-81%
9	840130	Nuclear fuel cartridges	\$4.5M	2805%	58%
10	870380	Motor vehicles, with only electric motor	\$153.9M	5444%	2755%
11	261590	Niobium, tantalum, vanadium ores and conc.	\$11.6M	3611%	1176%
12	850760	Lithium-ion batteries, including separators	\$1.41B	2198%	-37%
13	850164	Electric generators, AC>750kVA	\$22.8M	2102%	-83%
14	284210	Salts of inorganic acids or peroxyacids	\$42.5M	1942%	-97%
15	850163	Electric generators, AC>375kVA	\$22.2M	1483%	-90%
16	700510	Glass fibres	\$1.7M	883%	-76%
17	280530	Rare earth metals: scandium and yttrium	\$1.9M	665%	-88%
18	381511	Catalysts: reaction initiators and accelerators	\$15.8M	555%	-100%
19	390210	Propylene, other olefin polymers	\$540.8M	930%	298%
20	283529	Phosphates	\$2.9M	578%	-7%

Upstream
 Midstream
 Downstream
 Production Equipment

In both groups we see a similar set of strengths:

- » Critical minerals
- » Processed metals
- » Electrical and grid equipment
- » Chemicals, polymers, and catalysts
- » Lithium-ion batteries and components
- » EVs

This gives a strong indication of where Canada's industrial policies and trade infrastructure development could be focused. It could also guide importer and exporter mapping to identify the specific firms that could contribute to Canada's trade strategies.

Value Chain Segments

Similarly, Canada's best-performing value chain segments (Figures 1-7) exhibit strengths in upstream minerals, midstream processed metals, and midstream chemicals and polymers across multiple value chains. Further down the list, but still strong performers, are midstream components and production equipment for wind, solar, grid, and magnet applications. Even though Canada does not produce final products for wind, solar, or magnets, its underlying industrial base has strong alignment with these technologies. In other words, Canada can play a key role in the global value chains for these products.

Figures 1-7 compare average annual growth rates, 2019-2024, for the U.S. and the ROW against the 9% benchmark.^{viii} Above 9% on the y-axis (vertical), the segment is increasing trade. Above 9% on the x-axis (horizontal), the

segment is diversifying trade away from the United States. In these figures, bubble size corresponds to the value of Canadian exports in that segment: larger bubbles mean more export dollars.

Figure 1. EVs and Batteries: U.S. and ROW Growth Rates

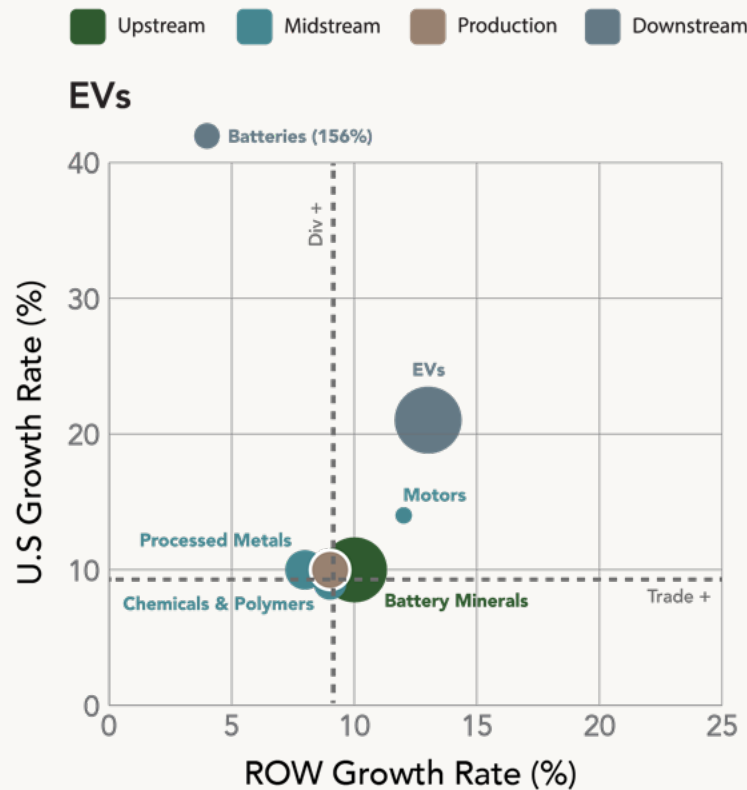


Figure 1 shows Canada's EV exports, covering all classes, grew rapidly in the U.S. and ROW. This is a key opportunity for Canada because

battery exports are increasing rapidly, but mainly to the United States. There is strong diversification potential here.

Figure 2. Nuclear Value Chain Segment: U.S. and ROW Growth Rates

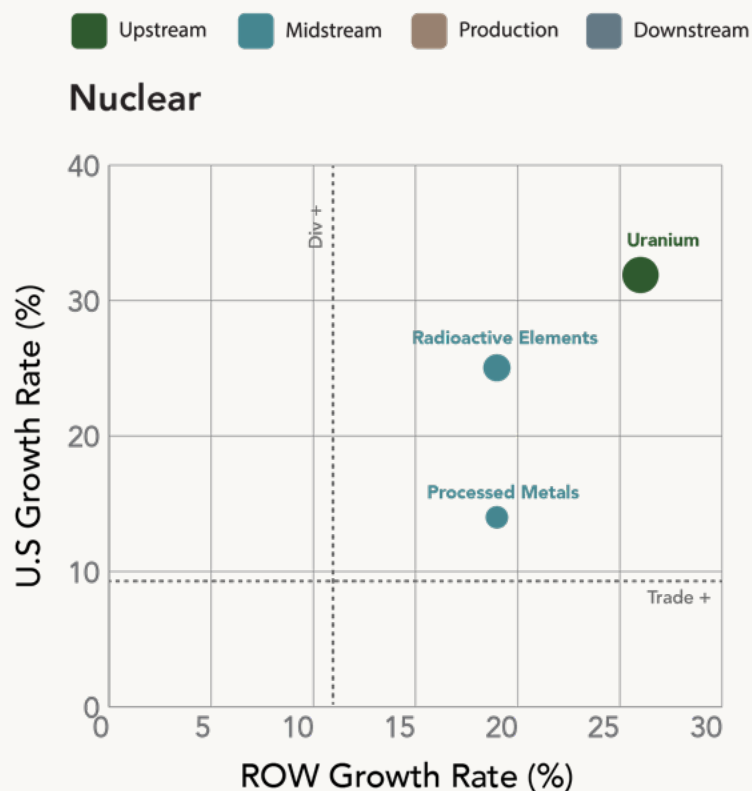


Figure 2 shows that the export of nuclear fuel and components is growing rapidly in the ROW and making a major contribution to

diversification. In particular, uranium exports to the ROW have grown 26% and, as a group, add up to \$2.9 billion in exports.

Figure 3 shows solid export growth in grid equipment and Canada's strength in upstream minerals. These represent

important opportunities for Canada, but more must be done to build ROW exports.

Figure 3. Grid: U.S. and ROW Growth Rates by Value Chain Segment

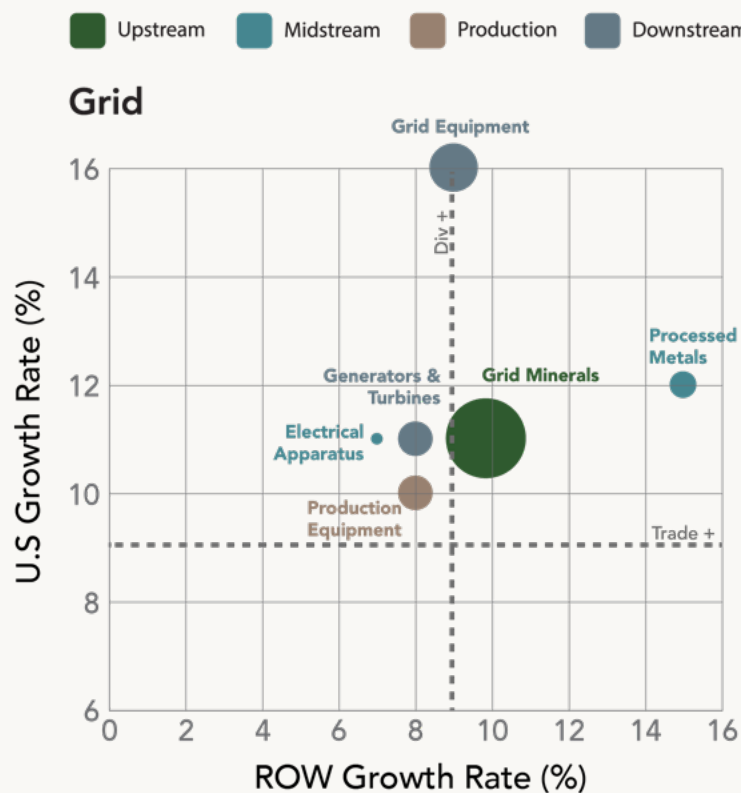


Figure 4. Mass Timber to Prefabricated Housing and heat pumps: U.S. and ROW Growth Rates by Value Chain

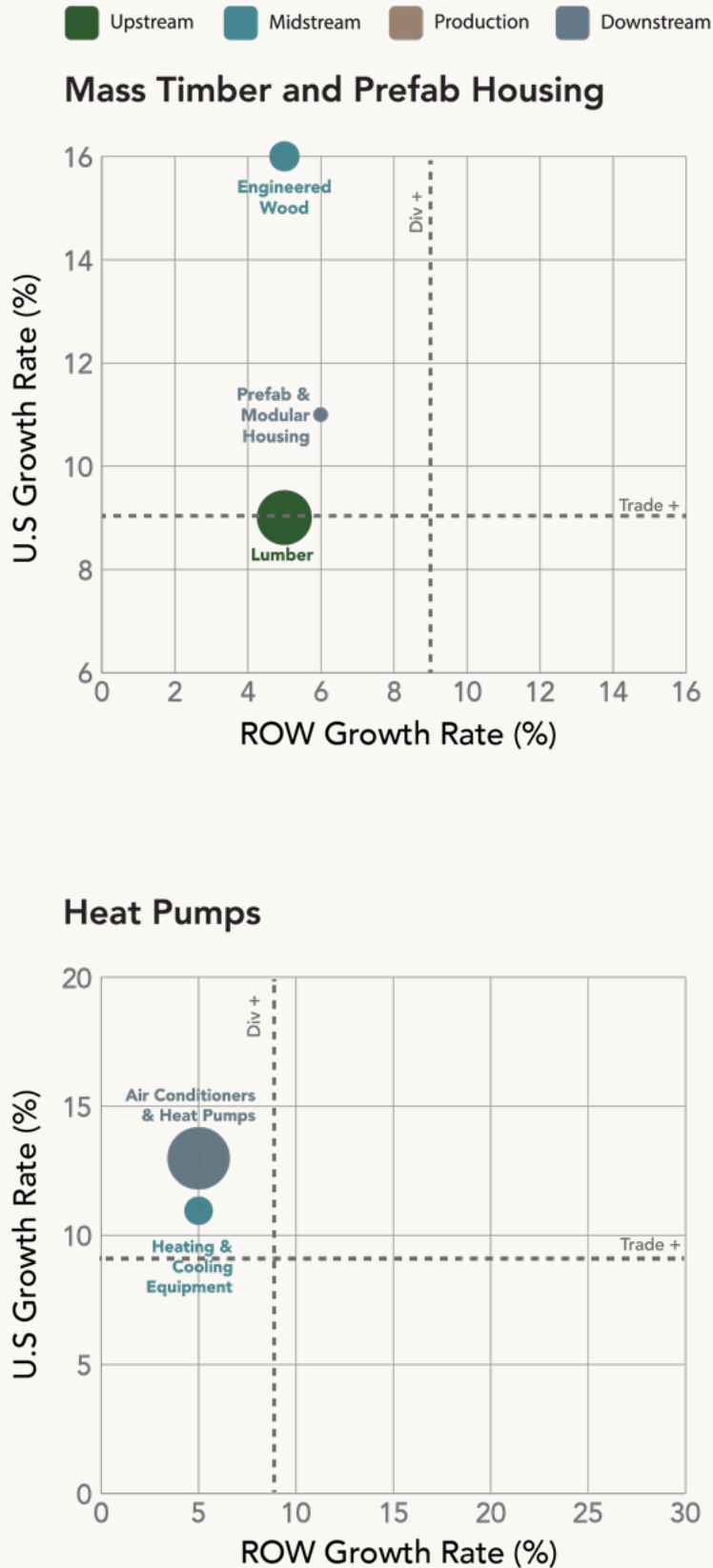


Figure 4 shows that in engineered wood, Asian markets are more likely to drive demand than other regions are. Canada's heat pump exports are increasing, but these represent a missed opportunity as Canadian exports struggle to compete with Japanese and European rivals.

Figure 5. Electrolyzers and Magnets: U.S. and ROW Growth Rates by Value Chain Segment

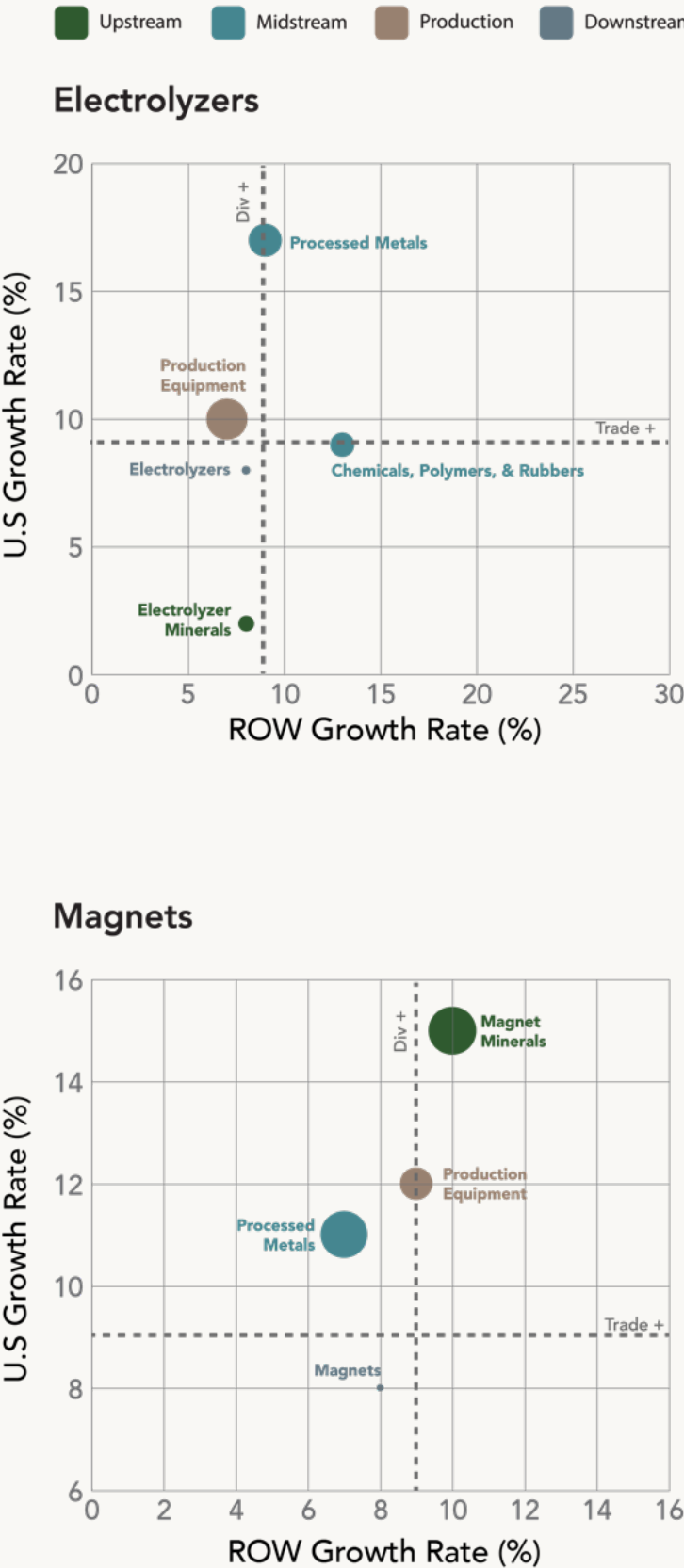


Figure 5 shows further upstream and midstream strengths. In electrolyzers, Canada falls just short of our benchmarks globally and ROW, but there is some basis for optimism there. In magnets, Canada’s strength in upstream minerals shows clearly.

Figure 6. Geothermal and Biofuels: U.S. and ROW Growth Rates by Value Chain Segment

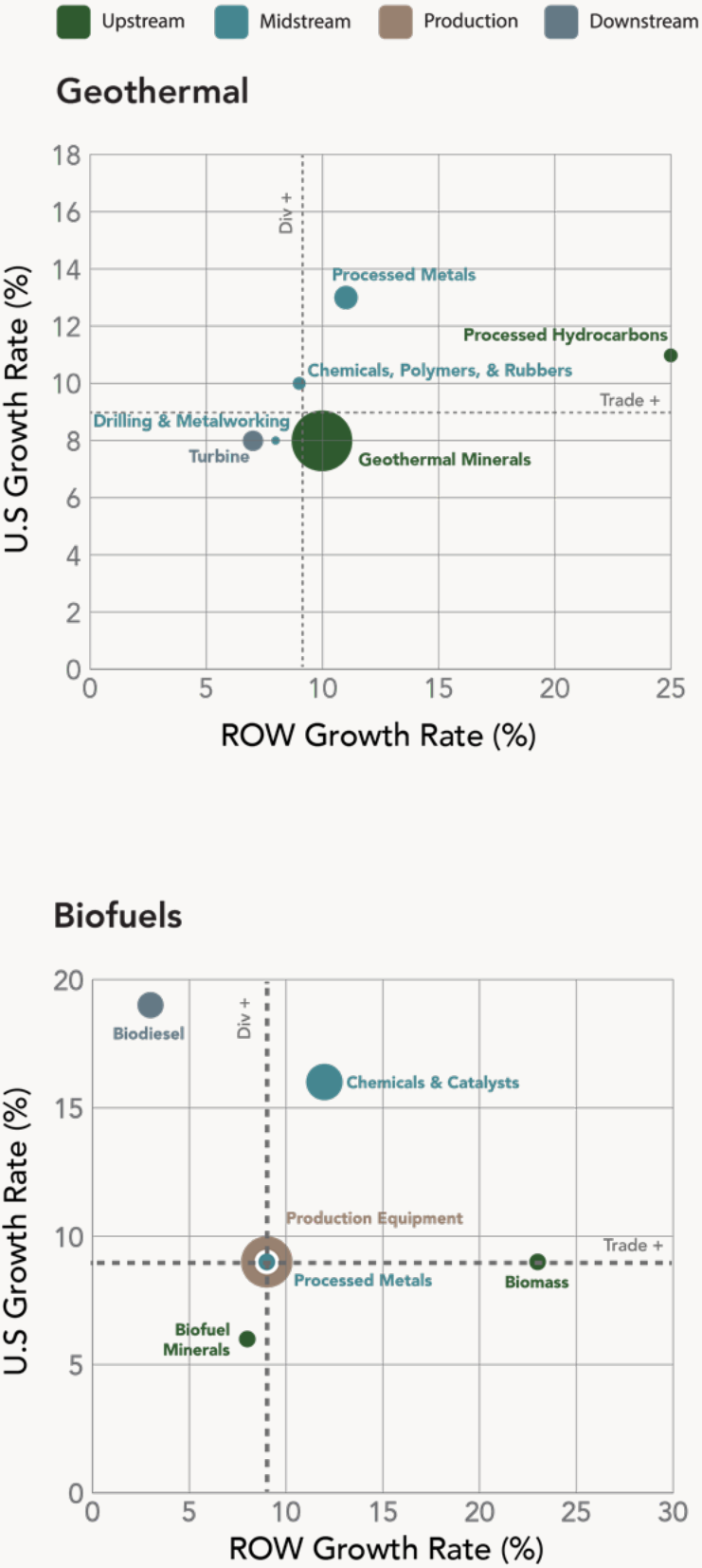


Figure 6 shows that production equipment and chemicals, polymers, and rubbers are consistently good performers across these value chains. In biofuels, Canada exports biomass, chemicals, and catalysts overseas.

Figure 7. Solar and Wind: U.S. and ROW Growth Rates by Value Chain Segment, 2019-2024

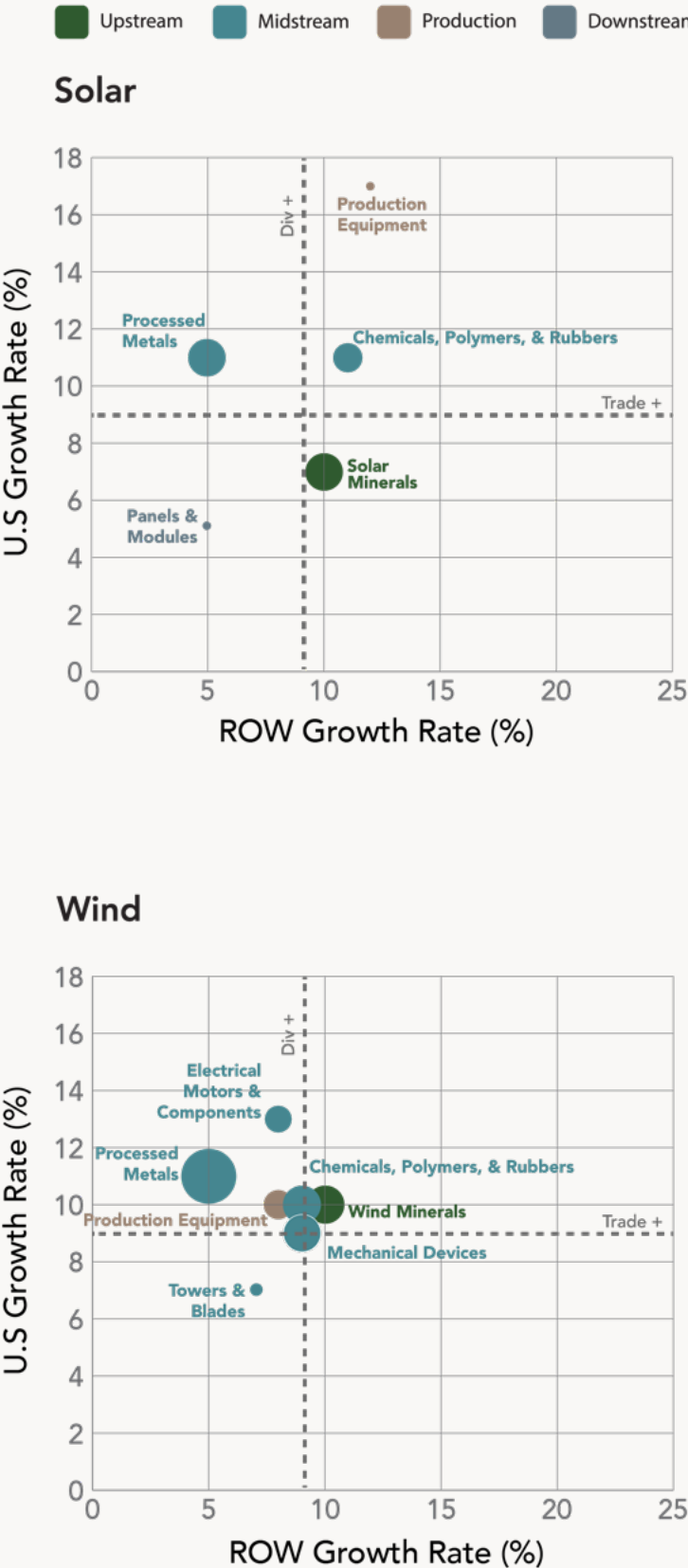


Figure 7 shows a clear trend: Canada is not a significant downstream producer of solar and wind components, but Canada’s general industrial base is well positioned to benefit from scaling participation in diversified supply chains.

Global Markets

The second key aspect of a trade-diversification strategy requires us to look at global markets. What does the world need, and which markets are growing fastest in the ROW? Again, we must ask both questions on two timescales: what can we export today, and what could we export over the next 30 years?

The structure of the global economy is enormously, intimidatingly complex, but we can simplify it by looking at the world's most traded products: cars, chips, and oil.

- » Oil and gas form the foundation of the global energy system, so it is no surprise that they account for 11% of global trade.
- » Cars and other vehicles are the world's largest and most expensive consumer good, accounting for about 11% of global trade in 2023.

- » Semiconductors and integrated circuits, used in everything from cars to smartphones, represent up to 7% of world trade.

Together, these three products make up almost 30% of global trade. They are also responsible for a large share of the electrical devices and machines traded between countries, which together account for 26% of world trade. Add in metals and mined materials (10%), food (9%), medical supplies and devices (8.5%), and wood (2%), and we are looking at 85% of world trade, covering all major categories that Canada could potentially export.

Continuing the analysis above, what clean energy value chain products are growing the fastest? Starting again with the largest product markets by absolute growth (the difference between export value in 2018 versus 2023), our trade growth index benchmarks these products to the average growth in clean energy value chains.

Table 5. Absolute growth in global clean energy imports, 2018-2023

Rank	HS6		Product Description	Absolute Growth (\$B)	Trade Growth Index
1	870380		Vehicles: battery electric (BEV)	190.0	44.67
2	850760		Lithium-ion batteries and separators	132.2	13.19
3	870340		Vehicles: non-plug-in hybrid (HEV)	102.7	9.47
4	260111		Iron ores and concentrates	88.3	2.70
5	870360		Vehicles: plug-in hybrid (PHEV)	65.9	14.36
6	850440		Electrical static converters	58.8	2.68
7	854140		Weaving looms: shuttleless (wide)	55.8	2.85
8	260300		Copper ores and concentrates	43.7	1.79
9	848620		Tool tips: carbide and cermet	37.2	2.21
10	853710		Electric control boards, panels ($\leq 1000V$)	31.4	1.31
11	740311		Copper cathodes: unwrought	20.9	0.86
12	392690		Plastic articles	19.9	0.82
13	720260		Ferro-alloys: ferro-nickel	18.8	9.33
14	382600		Biodiesel and mixtures	18.5	3.30
15	870350		Vehicles: non-plug-in diesel hybrid	18.4	39.73
16	854370		Electrical machines (individual functions)	16.6	1.35
17	730890		Iron/steel structures and parts	16.3	1.64
18	854129		Lifting and handling machinery	14.3	2.07
19	842139		Gas filtering and purifying machinery	13.0	1.47
20	841590		Air conditioning machines and parts	12.9	1.64

Upstream
 Midstream
 Downstream
 Production Equipment

This list of top products by absolute growth is not necessarily a good target list for Canada (e.g., weaving looms and tool tips), but it gives a sense of where there is major movement in clean energy trade markets. The emergence of EVs is a major force driving new trade. Trade in upstream metals and components is also booming. Trade in grid components—electrical static converters and electrical boards and panels—grew \$65B between 2018 and 2023. Production equipment also remains a key enabler of industrial competitiveness worldwide. The rapid growth in biodiesel is the biggest surprise here. Biodiesel trade rose from \$14B to \$28B in five years, an 18.4% annual growth rate.

The next figure matches areas of Canadian strength to these markets. On the Y axis is absolute growth in global markets between 2018 and 2023. On the X axis is absolute

growth in Canadian exports in the same products. The size of the bubbles corresponds to the size of the global market in 2023. Figure 8 shows products with global market growth greater than \$10 billion over the five-year period. These products offer large and growing markets into which Canada could trade. Trade in lithium-ion batteries, for example, grew almost \$100B between 2018 and 2023.

As this figure shows, Canada has strengths in rapidly emerging downstream markets in EVs and hybrids, as well as lithium-ion batteries. Moreover, Canada's strength in upstream critical minerals, especially iron and copper, is clearly shown. Another standout is grid equipment: electrical static converters, as well as electric control boards and panels, are key opportunities.

Figure 8. Top products by global market growth and Canadian export growth, 2018-2023, >\$10B global growth

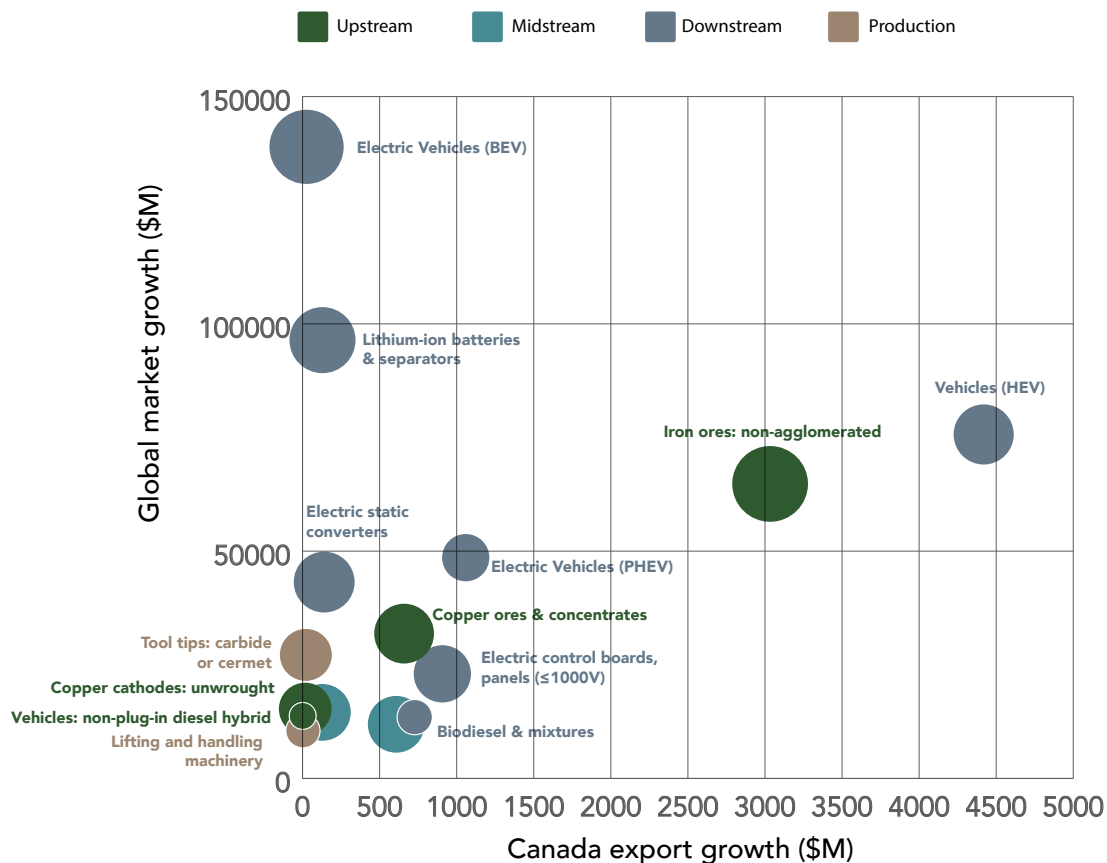


Figure 9 looks at markets with \$1B to \$10B in global market growth. These illustrate the breadth of the growing global industrial base that Canadian exports could serve. This class of opportunities prominently features what we classify as “midstream components,” including processed metals, chemicals, and high value machines and devices.

Further analysis could match Canada’s strengths to specific non-U.S. countries to identify which product markets are growing most rapidly in the jurisdictions of greatest interest. Targeted trade diplomacy should be data-driven: which product lines show trade deficits for the EU, UK, Australia, Japan, Korea, or emerging markets? This approach would enable Canada to build on its strengths across supply chains and support industrial base development in allied countries.

Figure 9. Top products by global market growth and Canadian export growth, \$1-10B global growth, 2018-2023

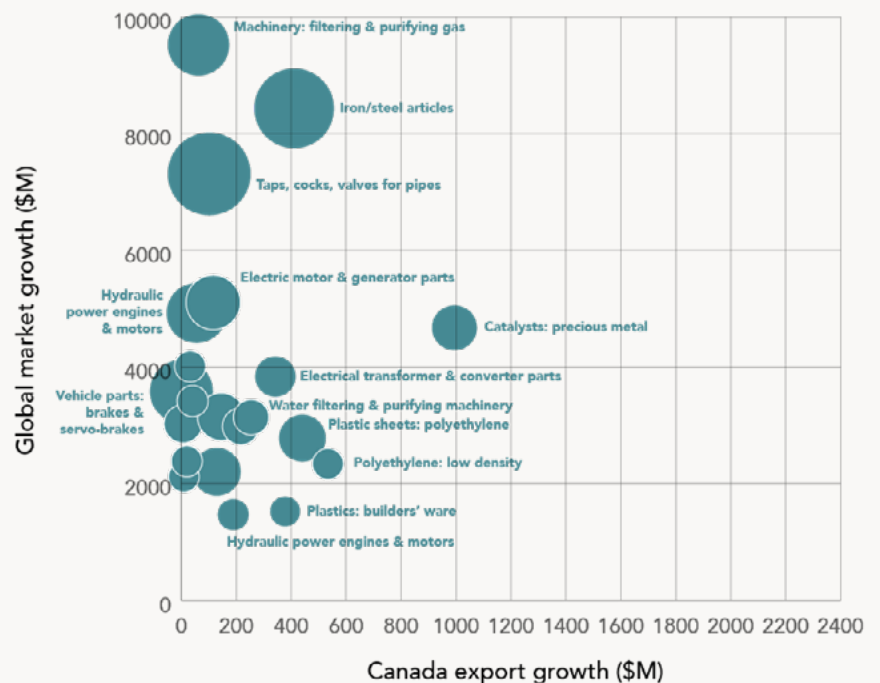
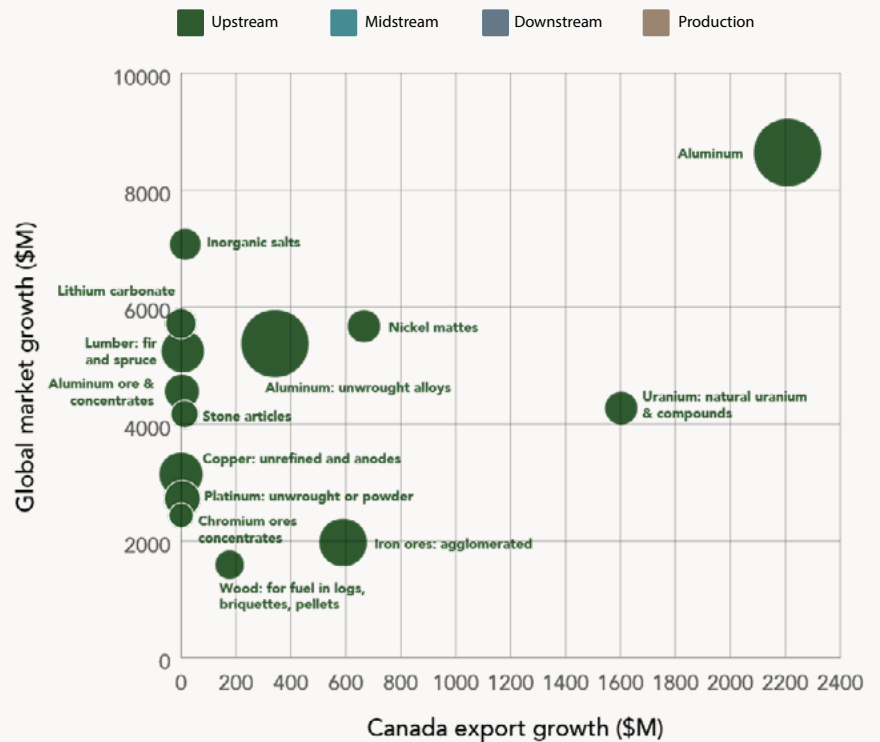
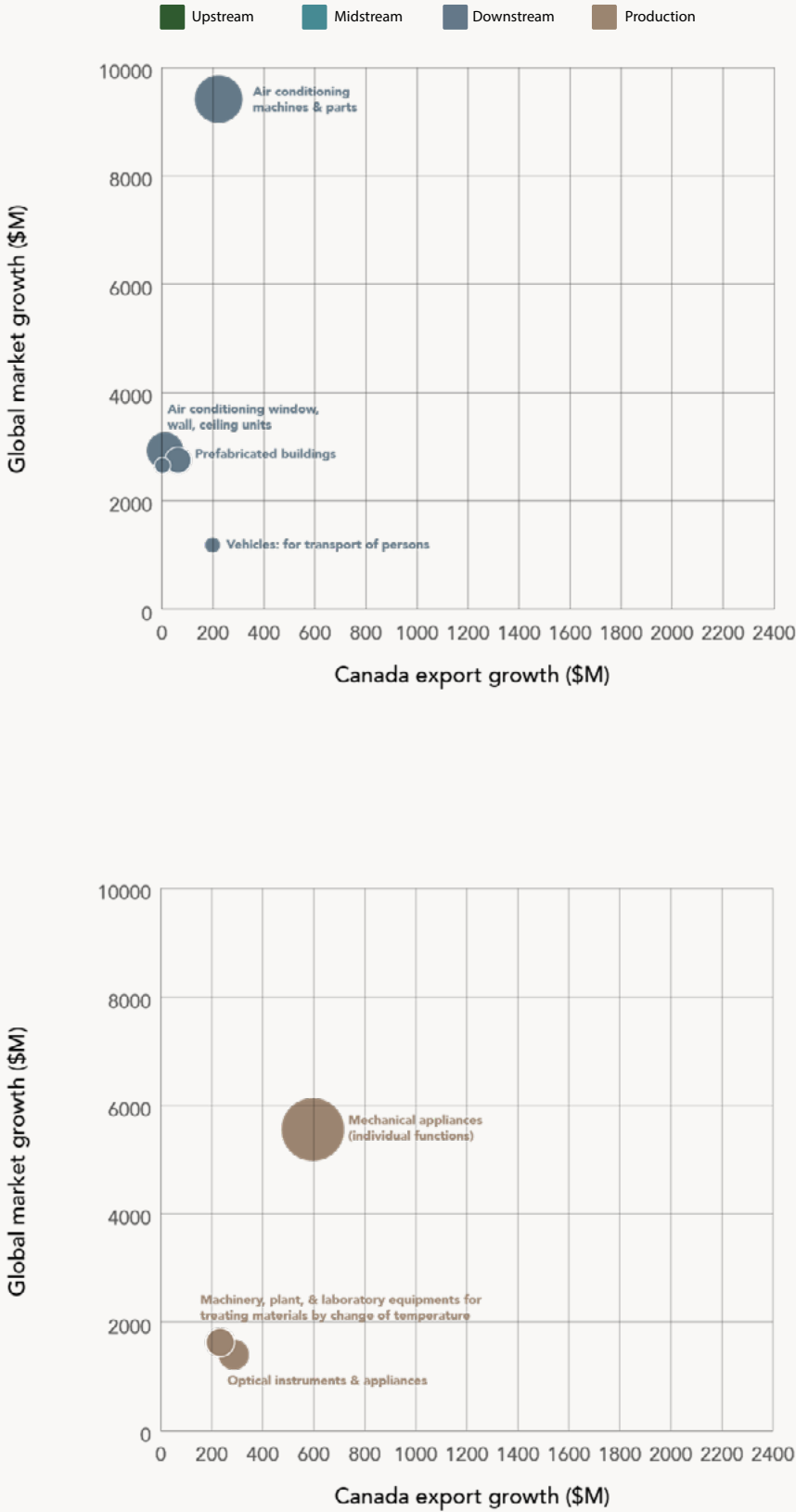


Figure 9. Top products by global market growth and Canadian export growth, 2018-2023, \$1-10B global growth





Further investments in these value chains will allow Canada to address climate, economic, and geopolitical imperatives simultaneously

Conclusions & Recommendations

Trump's tariffs have created a new geopolitical reality. Canada must reorient itself within this new order, where states wield strategic economic power to secure geopolitical influence.^{ix} For Canada, **the only viable response is a program of trade diversification, through which we rapidly build national economic power through domestic industrial development, in coordination with allied democracies.** This requires uniting our domestic and foreign policy within a clear industrial strategy.

Climate competitiveness can be a critical pillar of this strategy. This analysis demonstrates that, for Canada, investing in clean energy value chains is itself a trade diversification strategy. The evidence is clear: Canada's clean energy supply chain exports have grown 21% faster than other exports over five years, and further investments in these value chains will allow Canada to address climate, economic, and geopolitical imperatives simultaneously.

Canada must concentrate this strategy on specific supply chain segments where it can achieve scale and capture high value-add: upstream critical minerals processing (including uranium); midstream chemicals like polymers; midstream components in major vehicle, aerospace, and grid equipment value chains; high-value mechanical and electrical machinery crucial to production processes; and downstream vehicles and grid equipment.

Within this framework, **six sectoral capabilities warrant immediate priority:**

- 1 Critical minerals mining and processing,** establishing Canada as the processing hub for democratic supply chains;
- 2 An EV-industry leadership bid,** capturing battery component and vehicle assembly segments;
- 3 A chemicals push,** leveraging low-cost clean energy for polymers and specialty materials;
- 4 A clean power strategy,** calibrated to scale up Canadian grid equipment exporters;
- 5 Machinery-base development,** emphasizing precision equipment and industrial automation;
- 6 Mass timber and prefabricated housing,** to advance sustainable construction manufacturing.

Each of these focus areas can simultaneously advance climate action, trade diversification, and economic independence.

While agricultural exports and raw material extraction remain important revenue sources, Canada's economic sovereignty and geopolitical relevance depend on securing a higher place in value chains through processing and advanced manufacturing. Commodities, however strategically deployed, do not build the manufacturing capabilities or technology ecosystems that generate sustained economic power or enable meaningful contributions to allied defense and technology supply chains. Japan, for example, has lacked a military for 80 years, but has made itself indispensable by maintaining leadership in critical technological systems.^x

Processing critical minerals into battery-grade materials, manufacturing precision machinery components, and producing defense-relevant aerospace and maritime systems will position Canada as an essential node in democratic manufacturing networks.



1

Core Recommendations:

Rethink Trade Policy

Create a framework for managed trade that is not centred solely on trade agreements but also coordinates industrial policy with key allies.

Rather than focusing solely on traditional free trade agreements, Canada should establish joint industrial policy frameworks with European and Asian democracies to coordinate investments and production mandates across integrated manufacturing value chains.

This approach would include sector-specific compacts—for instance, in critical minerals, clean steel and aluminum, defense manufacturing, or battery production—where Canada and its allies would align subsidies, procurement commitments, and regulatory standards to deliberately construct interdependent supply chains that distribute value-added across partner countries.

Through mechanisms like reciprocal subsidy arrangements and contracts-for-difference jointly capitalized with our allies, Canada could secure guaranteed demand for Canadian-manufactured components from European automotive plants or Asian electronics manufacturers in exchange for Canadian procurement commitments to allied-produced inputs, **transforming trade diplomacy from tariff negotiation into coordinated industrial planning.**

In the defense industrial base specifically, Canada could establish production-sharing agreements with NATO allies and Indo-Pacific partners, in which emerging supply chains make the most of underlying comparative advantages, e.g., Canadian aerospace components, European missile systems, and Asian semiconductor integration. Binding procurement and offtake commitments can create resilient multi-national supply chains that bolster prosperity and geopolitical independence for Canada and key partners.

Domestic incentives can reinforce this strategy. As Jeff Mahon, Director of StrategyCorp's Geopolitical Advisory, has suggested, tax rebates for capital expenditures enable Canadian manufacturers to meet allied regulatory and product standards.^{xi} This would support Canadian companies wanting to integrate with EU technical specifications, Japanese quality certifications, or South Korean industrial standards. Similar incentives would allow Canadian manufacturing infrastructure to serve democratic supply chains without costly retrofits to access allied markets.

This managed trade framework would replace the unpredictable dynamics of conventional trade policy with anticipatory interdependence, where trade flows would follow coordinated investment decisions and shared industrial strategies, fundamentally reorienting Canada's commercial relationships around collective manufacturing capacity-building with democratic allies.

2

Focus Industrial Strategy

Canada should focus on a handful of strategic industries where it can compete globally,^{xii} and microtarget the development of key supply chain segments in rapidly growing global markets. Rather than treating critical minerals as undifferentiated commodities, Canada should identify which processing stages—such as lithium hydroxide for batteries, refined rare earths for permanent magnets, or processed graphite for anodes—offer the highest value-added and strongest demand growth in Asian and European manufacturing hubs.

This means moving beyond resource extraction to strategically position Canadian production in the midstream of democratic supply chains. Canada can play a key role in certain sectors, including battery component manufacturing, clean steel and aluminum, automotive and defense components, and chemicals, where we have competitive advantages and where allied partners have committed downstream demand.

The strategy must be selective: rather than spreading resources across sectors through fully open policies, Canada should concentrate federal investment, procurement, and regulatory fast-tracking on five to seven specific supply chain segments where scale is achievable.

The Trade Commissioner Service can then become a more disciplined and effective agent of Canadian industrial strategy. As Arthur Lam, Founding Partner at Nexus Strategic Consultants, argues, the Trade Commissioner Service could evolve into “a commercially driven export machine,” akin to the Korea Trade-Investment Promotion Agency or the Japan External Trade Organization.^{xiii}

3

Integrate Trade Diplomacy and Infrastructure with Industrial Strategy

Trade infrastructure must align strategically with targeted industrial development. Integrating trade infrastructure with industrial strategy means ensuring infrastructure investments reflect underlying realities about the supply chain segments in which Canada can compete. The Major Projects Office and other agencies can ensure that port expansions, rail corridors, and logistics hubs are sized and located to serve specific industrial clusters, rather than built speculatively.

Ideas like inland containerized ports in regional hubs—linking Prairie potash and Saskatchewan uranium to Pacific markets, or Quebec aluminum and battery components to Atlantic shipping lanes—will be critical to getting high-value manufactured products to deep-water ports quickly and cost-effectively.

Canada already has a strong diplomatic trade team with enviable access to deployable export finance.^{xiv} Export Development Canada (EDC) should be reoriented to serve the strategic vision outlined in this brief, drawing inspiration from the U.S. Export-Import Bank's Make More in America and China's Transformational Exports Programs, which make it easier to finance domestic industrial projects specifically designed to compete in foreign markets.

This means moving beyond passive trade finance to proactively de-risking investments in processing and manufacturing facilities that feed priority export markets—for instance, providing long-term financing for a battery component plant contingent on securing offtake agreements with South Korean manufacturers, or capitalizing a clean steel mill with guaranteed European procurement. The EDC has already ventured into this space with recent critical minerals announcements.^{xv}

But EDC and other agencies must maintain a strategic focus, concentrating its expanded mandate and balance sheet on high-value products destined for high-growth markets, rather than dispersing support across all exporters.

Endnotes

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- vii StatsCan <https://doi.org/10.25318/1210017101-eng>
- viii All exports grew 8.3% per year from 2019-2024. Exports to the U.S. grew 9% while exports to the rest of the world (ROW) grew 6%. For individual value chain segments, rates of growth above 8.3% increase trade as a whole, while ROW growth above 9% diversifies trade. Thus, 9% is a good general performance benchmark to use across segments and products.
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